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tal layer is formed on the dielectric layer.

Brief Summary Text - BSTX (59):

(c) A patterned resist film is formed on the metal layer. The resist film has a pattern for a contact/through hole.

Brief Summary Text - BSTX (60):

(d) The metal layer is selectively etched using the patterned resist film as a mask to thereby transfer the pattern of the resist film to the metal layer. Thus, a hole pattern is formed to penetrate the metal layer.

Brief Summary Text - BSTX (61):

(e) The patterned resist film is removed from the etched metal layer.

Brief Summary Text - BSTX (62):

(f) The dielectric layer is selectively etched using the etched metal layer as a mask to thereby transfer the hole pattern of the metal layer to the dielectric layer. Thus, a contact/through hole is formed to penetrate the dielectric layer and to extend to the lower electrical

ic layer during the step (f). The contact/through hole is completed while the metal layer is subject to negligible thickness reduction with respect to its initial thickness due to an etching action during the step (f).

Brief Summary Text - BSTX (64):

With the formation method of a contact/through hole according to the first aspect of the present invention, the pattern of the resist film for the contact/through hole is transferred to the metal layer, and then, the metal layer thus pattern-transferred is used as a hard mask during the etching step (f) for the dielectric layer.

Brief Summary Text - BSTX (65):

The metal layer has a higher etching resistance to an etching action during the step (f) compared with the conventional resist film. Also, unlike the conventional resist film, the pattern contour of the metal layer does not tend to degrade even if the metal layer is subjected to the etching action and high temperature during the step (f).

evaporation or by any one of the various CVD processes. Therefore, compared with the first and second conventional methods described previously in which a polysilicon mask is used, any one of contact and through holes is able to be formed at decreased process temperatures.

Brief Summary Text - BSTX (69):

In the method according to the first aspect, the dielectric layer may be made of any dielectric material such as SiO_2 and SiN . The metal layer may be made of any metal such as W, Ti, and TiN. The resist film may be made of a film of any resist material such as photoresist, Electron-Beam (EB) resist, and so on.

Brief Summary Text - BSTX (71):

In a preferred embodiment of the method according to the first aspect, a step (g) of removing the metal layer is provided after the step (f), and a step (h) of forming an electrically-conductive plug to fill the hole of the dielectric layer is provided after the step (g). The lower electrical conductor in the substructure is electrically connecte